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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------------------|------------------|
| 10/812,879 | 03/31/2004 | Seichi Okamura | 251213US2 | 4548 |
| 22850 | 7590 | 09/11/2007 | | |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | EXAMINER LARKIN, DANIEL SEAN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2856 | |
| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 09/11/2007 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|-------------------------------|---------------------------------|--|
| Office Action Summary | Application No. 10/812,879 | Applicant(s) OKAMURA, SEICHI | |
| | Examiner Daniel S. Larkin | Art Unit 2856 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7 and 9-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,5,11 and 16-19 is/are allowed.
- 6) ☒ Claim(s) 4, 6, 7, 9, 10, and 12-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the feature(s) canceled from the claim(s):

Providing an "entrance aperture plate and a traveling mechanism" in combination with all of the remaining limitations of claim 1. Figure 12 shows the entrance aperture plate (26), but fails to show a traveling mechanism.

Providing an "entrance aperture plate and an exit aperture plate with an exit aperture" in combination with all of the remaining limitations of claims 1, 4, and 9.

Providing an "entrance aperture plate and the exit aperture plate with multiple exit apertures" in combination with all of the remaining limitations of claims 1, 4, and 10.
No new matter should be entered.

2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings

for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:

Page 46, line 30: The term "path" should be corrected to read -- pass --.

Page 47, line 21: The term "liner" should be corrected to read -- linear --.

Appropriate correction is required.

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Providing an irradiation mechanism comprising a detection antenna and a detector, as recited in claim 4.

Claim Objections

5. Claims 1, 2, 4-7, and 9-17 are objected to because of the following informalities:

Re claim 1, claim line 11: The "comma" after the term "sample" should be replaced with a -- semicolon --.

Re claim 4, claim lines 1-5: Claim 4 fails to further limit the limitations recited in claim 1. Claim 1 sets forth that the irradiation mechanism is comprised of an oscillator and a radiation antenna; however, claim 4 recites that the irradiation mechanism is comprised of a detection antenna and a detector. How is that possible?

Re claim 12, claim line 2: The term "the receiving antenna" lacks antecedent basis. Claim 4 previously recites a detection antenna.

Re claim 14, claim line 2: The term "the receiving antenna" lacks antecedent basis.

Re claim 14, claim line 3: The term "the receiving transmitter side cable" lacks antecedent basis. Claim 12 has previously recited a detector side cable. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 13-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to the limitations of claim 13, the specification fails to provide an adequate written description for providing an interface detection apparatus that utilizes an entrance aperture plate disposed between a radiation antenna and an oscillator and a first anti-reflection plate also disposed between the oscillator and the radiation antenna.

With respect to the limitations of claim 14, the specification fails to provide an adequate written description for providing an interface detection apparatus that utilizes an entrance aperture plate disposed between a radiation antenna and an oscillator and a second anti-reflection plate disposed between the detector and the detection antenna.

With respect to the limitations of claim 15, the specification fails to provide an adequate written description for providing an interface detection apparatus that utilizes an entrance aperture plate disposed between a radiation antenna and an oscillator and a cylindrical anti-reflection plate enclosing the sample.

8. Claims 4, 6, 7, 9, 10, and 12-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

With respect to the limitations of claim 4, the specification fails to provide an

enabling description for providing an irradiation mechanism that comprises a detection antenna and a detector. The specification provides no support for calling the detection antenna and the detector the irradiation mechanism. The specification identifies these two structures as the detector mechanism.

With respect to the limitations of claim 13, the specification fails to provide an enabling description for providing an interface detection apparatus that utilizes an entrance aperture plate disposed between a radiation antenna and an oscillator and a first anti-reflection plate also disposed between the oscillator and the radiation antenna.

With respect to the limitations of claim 14, the specification fails to provide an enabling description for providing an interface detection apparatus that utilizes an entrance aperture plate disposed between a radiation antenna and an oscillator and a second anti-reflection plate disposed between the detector and the detection antenna.

With respect to the limitations of claim 15, the specification fails to provide an enabling description for providing an interface detection apparatus that utilizes an entrance aperture plate disposed between a radiation antenna and an oscillator and a cylindrical anti-reflection plate enclosing the sample.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 4, 6, 7, 9, 10, 12, 14, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 4, claim lines 2-5: It not clear how a detection antenna and a detector operate as an irradiation mechanism since neither structure irradiates or is utilized to irradiate an object.

Re claim 14, claim line 2: How is a second anti-reflection plate present without first reciting a first anti-reflection plate?

Allowable Subject Matter

11. Claims 1, 2, 5, 11, and 16-19 are allowed.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Larkin whose telephone number is 571-272-2198. The examiner can normally be reached on 8:00 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel Larkin
AU 2856
31 August 2007



DANIEL S. LARKIN
PRIMARY EXAMINER